Material Safety Data Sheet

Hydrogen Peroxide (RXSOL-19-1630-210)

1. Product and Company Identifaction

Product Name	RXSOL-19-1630-210
Product Type	Hydrogen Peroxide

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Stock Point : Mumbai, Kandla, Kolkata, Chennai, Visakhapatnam, Vizag, Fujairah, Muscat

Phone	+91 22 27815540 / 41 / 42 / 43
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	mail@rxmarine.com

2. Composition / informationon ingredients

Name	CAS	Weight Percentage
Water	7732-18-5	40-45
Hydrogen Peroxide	7722-84-1	55-60

Toxicological Data on Ingredients: Hydrogen Peroxide: ORAL (LD50): Acute: 2000 mg/kg [Mouse]. DERMAL (LD50): Acute: 4060 mg/kg [Rat]. 2000 mg/kg [pig]. VAPOR (LC50): Acute: 2000 mg/m 4 hours [Rat].

3. Hazards Identification

Potential Acute Health Effects:
Very hazardous in case of skin contact (irritant), of eye contact (irritant). Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of ingestion, . Slightly hazardous in case of inhalation (lung sensitizer). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage. p. 2

4. First Aid Measures

Eye Contact:	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
Skin Contact:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately

Serious Skin Contact:	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Serious Inhalation:	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention
Ingestion:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear
Serious Ingestion:	Not available.

5. Fire-fighting Measures

Flammability of the Product:	Non-flammable.
Auto-Ignition Temperature:	Not applicable.
Flash Points:	Not applicable.
Flammable Limits:	Not applicable
Products of Combustion:	Not available.
Fire Hazards in Presence of Various Substances:	combustible materials
Explosion Hazards in Presence of Various Substances:	Slightly explosive in presence of open flames and sparks, of heat, of organic materials, of metals, of acids.

Fire Fighting Media and Instructions:

Fire: Small fires: Use water. Do not use dry chemicals or foams. CO2, or Halon may provide limited control. Large fires: Flood fire area with water from a distance. Move containers from fire area if you can do it without risk. Do not move cargo or vehicle if cargo has been exposed to heat. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. ALWAYS stay away from tanks engulfed in fire.For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. / Hydrogen peroxide, aqueous solution, with not less than 8% but less than 20% Hydrogen peroxide; Hydrogen peroxide, aqueous solution, with not less than 20% but not more than 60% Hydrogen peroxide (stabilized as necessary)/ [QC Reviewed] [U.S. Department of Transportation. 2000 Emergency Response Guidebook. RSPA P 5800.8 Edition. Washington, D.C: U.S. Government Printing Office, 2000,p. G-140]

Special Remarks on Fire Hazards:

Most cellulose (wood, cotton) materials contain enough catalyst to cause spontaneous ignition with 90% Hydrogen Peroxide. Hydrogen Peroxide is a strong oxider. It is not flammable itself, but it can cause spontaneous combustion of flammable materials and continued support of the combustion because it liberates oxygen as it decomposes. Hydrogen peroxide mixed with magnesium and a trace of magnesium dioxide will ignite immediately

Special Remarks on Explosion Hazards:

Soluble fuels (acetone, ethanol, glycerol) will detonate on a mixture with peroxide over 30% concentration, the violence increasing with concentration. Explosive with acetic acid, acetic anhydride, acetone, alcohols, carboxylic acids, nitrogen containing bases, As2S3, Cl2 + KOH, FeS, FeSO4 + 2 methylpryidine + H2SO4, nitric acid, potassium permanganate, P2O5, H2Se, Alcohols + H2SO4, Alcohols + tin chloride, Antimoy trisulfide, chlorosulfonic acid, Aromatic hydrocarbons + trifluoroacetic acid, Azeliac acid + sulfuric acid (above 45 C), Benzenesulfonic anhydride, tert-butanol + sulfuric acid, Hydrazine, Sulfuric acid, Sodium iodate, Tetrahydrothiophene, Thiodiglycol, Mercurous oxide, mercuric oxide, Lead dioxide, Lead oxide, Manganese dioxide, Lead sulfide, Gallium + HCl, Ketenes + nitric acid, Iron (II) sulfate + 2-methylpyridine +

sulfuric acid, Iron (II) sulfate + nitric acid, + sodium carboxymethylcellulose (when evaporated), Vinyl acetate, trioxane, water + oxygenated compounds (eg: acetaldehyde, acetic acid, acetone, ethanol, formaldehyde, formic acid, methanol, 2-propanol, propionaldehyde), organic compounds. Beware: Many mixitures of hydrogen peroxide and organic materials may not explode upon contact. However, the resulting combination is detonatable either upon catching fire or by impact.
EXPLOSION HAZARD: SEVERE, WHEN HIGHLY CONCENTRATED OR PURE H2O2 IS EXPOSED TO HEAT, MECHANICAL IMPACT, OR CAUSED TO DECOMPOSE CATALYTICALLY BY METALS & THEIR SALTS, DUSTS & ALKALIES. ANOTHER SOURCE OF HYDROGEN PEROXIDE EXPLOSIONS IS FROM SEALING THE MATERIAL IN STRONG CONTAINERS. UNDER SUCH CONDITIONS EVEN GRADUAL DECOMPOSITION OF HYDROGEN PEROXIDE TO WATER + 1/2 OXYGEN CAN CAUSE LARGE PRESSURES TO BUILD UP IN THE CONTAINERS WHICH MAY BURST EXPLOSIVELY. Fire or explosion: May explode from friction, heat or contamination. These substances will accelerate burning when involved in a fire. May ignite combustibles (wood, paper, oil, clothing, etc.). Some will react explosively with hydrocarbons (fuels). Containers may explode when heated. Runoff may create fire or explosion hazard. /Hydrogen peroxide, aqueous solution, stabilized, with more than 60% Hydrogen peroxide; Hydrogen peroxide, stabilized/ [QC Reviewed] [U.S. Department of Transportation. 2000 Emergency Response Guidebook. RSPA P 5800.8 Edition. Washington, D.C: U.S. Government Printing Office, 2000,p. G-143] . Fire or explosion: These substances will accelerate burning when involved in a fire. Some may decompose explosively when heated or involved in a fire. May explode from heat or contamination. Some will react explosively with hydrocarbons (fuels). May ignite combustibles (wood, paper, oil, clothing, etc.). Containers may explode when heated. Runoff may create fire or explosion hazard. /Hydrogen peroxide, aqueous solution, with not less than 8% but less than 20% Hydrogen peroxide; Hydrogen peroxide, aqueous solution, with not less than 20% but not more than 60% Hydrogen peroxide (stabilized as necessary)/ [QC Reviewed] [U.S. Department of Transportation. 2000 Emergency Response Guidebook. RSPA P 5800.8 Edition. Washington, D.C: U.S. Government Printing Office, 2000,p. G-140] (Hydrogen Peroxide)

6. Accidental Release Measures

Small Spill:	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container
Large Spill:	Corrosive liquid. Oxidizing material. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Spillage	Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas dike if needed. Eliminate all ignition sources. Call for assistance on disposal.
Enviromental Precaution	Do not empty into drains.
Methods and materials for containment and cleaning	Cover drains. Collect, bind, and pump off spills.Observe possible material restrictions (see sections 7 and 10).Take up with liquid-absorbent and neutralising material . Dispose of properly. Clean up affected area.

7. Handling and Storage

Precautions:	Keep locked up.. Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from combustible material.. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, combustible materials, organic materials, metals, acids, alkalis
Storage:	Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalies, reducing agents and combustibles. See NFPA 43A, Code for the Storage of Liquid and Solid Oxidizers. Do not store above 8°C (46.4°F). Refrigerate Sensitive to light. Store in light-resistant containers.

Advice on protection against fire and explosion	Keep away from open flames, hot surfaces and sources of ignition.
Incompatible materials	Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills.
Hygiene measures	Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

Precautions for safe handling	Observe label precautions.
Storage conditions	No metal containers. Close containers in such a way to enable internal pressure to escape (e.g. excess pressure valve). Tightly closed. Protected from light. Do not store near combustible materials. Recommended storage temperature see product label.No metal containers. Close containers in such a way to enable internal pressure to escape (e.g. excess pressure valve). Tightly closed. Protected from light. Do not store near combustible materials. Recommended storage temperature see product label.
Storage class	Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
Advice on general occupational hygiene	Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance.
Requirements for storage	Keep in cool and store under shade.

8. Exposure controls and personal protection

Engineering Controls:	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location
Personal Protection:	Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots
Personal Protection in Case of a Large Spill:	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	Hydrogen Peroxide TWA: 1 (ppm) from ACGIH (TLV) [United States] TWA: 1 (ppm) from OSHA (PEL) [United States] TWA: 1 STEL: 2 [Canada] TWA: 1.4 (mg/m3) from NIOSH TWA: 1.4 (mg/m3) from OSHA (PEL) [United States] TWA: 1 (ppm) [United Kingdom (UK)] TWA: 1.4 (mg/m3) [United Kingdom (UK)]Consult local authorities for acceptable exposure limits

Exposure controls	Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Control parameters	Ingredients with workplace control parameters Contains no substances with occupational exposure limit values.
Engineering Control	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Eye/face protection	Tightly fitting safety goggles
Body Protection	Protective clothing
Skin protection	This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Latex gloves Minimum layer thickness: 0,6 mm Break through time: 480 min Material tested:Lapren® (KCL 706 / Aldrich Z677558, Size M) This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L
Respiratory protection	Recommended Filter type: filter NO The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
Other Protection Measure	Handle in accordance with good industrial hygiene and safety practice.
Control of environmental exposure	Do not empty into drains.

9. Physical and chemical properties

Physical state and appearance:	Liquid
Odor	Odorless.
Taste	Slightly acid. Bitter
Molecular Weight:	Not applicable.
Color:	Clear Colorless
pH (1% soln/water):	Not available
Boiling Point:	108°C (226.4°F)
Melting Point	-33°C (-27.4°F)
Critical Temperature	Not available
Specific Gravity	1.1 (Water = 1)
Vapor Pressure	3.1 kPa (@ 20°C)
Vapor Density	1.1 (Air = 1)
Volatility	Not available
Odor Threshold	Not available
Water/Oil Dist. Coeff.	Not available
Ionicity (in Water)	Not available
Dispersion Properties	See solubility in water, diethyl ether
Solubility	Easily soluble in cold water. Soluble in diethyl ether

Physical state	Liquid
Colour	Colorless
Odour	Slight
Odor Threshold	No data available
pH	2 - 4 at 100% at 20 °C
Melting Point	-26 °C
Boiling Point	107 °C at 1.013 hPa
Flash Point	No data available
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No data available

Explosive limits	No Data Available
Upper/lower flammability or explosive limits	No data available
Autoignition temperature	No data available
Decomposition temperature	> 100 °C
Vapour pressure	ca.18 hPa at 20 °C
Density	1,11 g/cm3 at 20 °C
Relative Density	No data available
Relative vapor density	No data available
Freezing point	No data available
Viscosity	No data available
Partition coefficient	No data available
Explosive properties	No data available
Solubility	No data available
Ignition temperature	No information available.
Particle characteristics	No data available

10. Stability and reactivity

Stability	The product is stable. It contains a stabilizer
Instability Temperature:	Not available
Conditions of Instability	Excess heat, incompatible materials
Incompatibility with various substances	Reactive with reducing agents, combustible materials, organic materials, metals, acids, alkalis.
Corrosivity:	Non-corrosive in presence of glass

Special Remarks on Reactivity:

Light sensitive. Incompatible with reducing materials, ethers (dioxane, furfuran, tetrahydrofuran), oxidizing materials, Metals(eg. potassium, sodium lithium, iron, copper, brass, bronze, chromium, zinc, lead, silver, nickel), metal oxides (eg. cobalt oxide, iron oxide, lead oxide, lead hydroxide, manganese oxide), metal salts (eg. calcium permanganate, salts of iron), manganese, asbestos, vanadium, platinium, tungsten, molybdeum, triethylamine, palladium, sodium pyrophosphate, carboxylic acids, cyclopentadiene, formic acid, rust, ketones, sodium carbonate, alcohols, sodium borate, aniline, mercurous chloride, rust, nitric acid, sodium pyrophosphate, hexavalent chromium compounds, tetrahydrofuran, sodium fluoride organic matter, potassium permanganate, urea, chlorosulfonic acid, manganese dioxide, hydrogen selenide, charcoal, coal, sodium borate, alkalies, cyclopentadiene, glycerine, cyanides (potassium, cyanide, sodium cyanide), nitrogen compounds.. Caused to decompose catalytically by metals (in order of decreasing effectiveness): Osmium, Palladium, Platinum, Iridium, Gold, Silver, Manganese, Cobalt, Copper, Lead. Concentrated hydrogen peroxide may decompose violently or explosively in contact with iron, copper, chromium, and most other metals and their salts, and dust. (Hydrogen Peroxide)

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Reactivity	Has a fire-promoting effect due to release of oxygen.
Stability	heat-sensitive Sensitivity to light Contains the following stabilizer(s): Disodium pyrophosphate (0,015 %) phosphoric acid (0,01 %) Ammonium nitrate (0,006 %)
Possibility of hazardous reactions	Risk of explosion with: Acetaldehyde Acetone Activated charcoal Alcohols formic acid Ammonia combustible substances vinyl acetate Organic Substances Powdered metals Dust hydrazine and derivatives hydrides Ether Potassium anilines Metallic salts acetic acid Acetic anhydride Formaldehyde furfuryl alcohol oils sodium Lithium lithium aluminium hydride organic solvents Magnesium metallic oxides Methanol Reducing agents Oxides of phosphorus butanol with Sulphuric acid alkali hydroxides with Heavy metals Exothermic reaction with: alkali hydroxides antimony sulfide tin (II) chloride Sulfides 3-BROMO - 5 -CHLORO - 4 -HYDROXYBENZALDEHYDE nitric acid (conc.) ethanol glycerol Potassium hydroxide phosphorus metallic oxides Sodium hydroxide Aldehydes nonmetals nonmetallic oxides strong alkalis Amines Acids Oxidizing agents alkali salts Alkali metals Alkaline earth metals iodides peroxi compounds Brass organic nitro compounds phenol with metal catalysts Risk of ignition or formation of inflammable gases or vapours with: potassium permanganate Wood/Sawdust vinyl acetate with Catalyst

Conditions to avoid	Heating.
Incompatible materials	Metals
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

Toxicity to Animals: Acute oral toxicity (LD50): 6667 mg/kg (Mouse) (Calculated value for the mixture). Acute dermal toxicity (LD50): 6667 mg/kg (pig) (Calculated value for the mixture).
Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified A3 (Proven for animal.) by ACGIH [Hydrogen Peroxide]. Classified 3 (Not classifiable for human.) by IARC [Hydrogen Peroxide]. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Hydrogen Peroxide]. Mutagenic for bacteria and/or yeast. [Hydrogen Peroxide]. Contains material which may cause damage to the following organs: blood, upper respiratory tract, skin, eyes, central nervous system (CNS).
Other Toxic Effects on Humans:Very hazardous in case of skin contact (irritant). Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of ingestion, of inhalation (lung corrosive).
Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: May cause cancer and may affect genetic material based on animal data. May be tumorigenic. (Hydrogen Peroxide)
Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: Causes severe skin irritation and possible burns. Absorption into skin may affect behavior/central nervous system (tremor, ataxia, convulsions), respiration (dyspnea, pulmonary emboli), brain. Eyes: Causes severe eye irritation, superficial clouding, corneal edema, and may cause burns. Inhalation: Causes respiratory tract irritation with coughing, lacrimation. May cause chemical burns to the respiratory tract. May affect behavior/Central nervous system (insomnia, headache, ataxia, nervous tremors with numb extremities) and may cause ulceration of nasal tissue, and , chemical pneumonia, unconciousness, and possible death. At high concentrations, respiratory effects may include acute lung damage, and delayed pulmonary edema. May affect blood. Ingestion: Causes gastrointestional tract irritation with nausea, vomiting, hypermotility, and diarrhea. Causes gastrointestional tract burns. May affect cardiovascular system and cause vascular collapse and damage. May affect blood (change in leukocyte count, pigmented or nucleated red blood cells). May cause difficulty in swallowing, stomach distension and possible cerebal swelling. May affect behavior/central nervous system (tetany, excitement). Chronic Potential Health Effects: Prolonged or repeated skin contact may cause dermatitis. Repeated contact may also cause corneal damage. Prolonged or repeated ingestion may affect metabolism (weight loss). Prolonged or repeated inhalation may affect respiration, blood. (Hydrogen Peroxide)

Acute toxicity	LD50 Oral - Rat - female - 693,7 mg/kg (OECD Test Guideline 401) Acute toxicity estimate Inhalation - 4 h - 11,1 mg/l - vapor (Expert judgment) LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg (US-EPA)
Skin corrosion/irritation	Remarks: Causes severe burns. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)
Serious eye damage/eye irritation	Remarks: Causes serious eye damage.
Respiratory or skin sensitization	Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406)
Toxic Effects on Human	May cause damage to the following organs: upper respiratory tract. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation (lung irritant, lung sensitizer).
Carcinogenicity	No data available
Germ cell mutagenicity	Method: OECD Test Guideline 474 Species: Mouse - male and female - Bone marrow Result: negative
Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	Inhalation - May cause respiratory irritation. - Respiratory Tract
Special Remarks on other Toxi Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization, an allergic reation, which becomes evident upon re-exposure to this material. Eyes: Causes eye irritation. Ingestion: Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, and diarrhea. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May cause chemical pneumonitis and pulmonary edema, inflammation, edema of bronchi and larynx. Chronic Potential Health Effects: Repeated or prolonged skin exposure may cause allergic reactions in sensitive individuals. Repeated or prolonged exposure by inhalation may affect respiration and metabolism.

Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Repeated dose toxicity - Rat - male and female - Oral - NOAEL (No observed adverse effect level) - 100 mg/kg - LOAEL (Lowest observed adverse effect level) - 225 mg/kg Remarks: The value is given in analogy to the following substances: ammonium bromide RTECS: VZ3150000 Effects due to ingestion may include:, sedation To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Systemic effects: Tiredness After uptake of large quantities: ataxia (impaired locomotor coordination) confusion Convulsions Coma However, when the product is handled appropriately, hazardous effects are unlikely to occur. Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

Ecotoxicity:	Not available
BOD5 and COD:	Not available
Products of Biodegradation	Possibly hazardous short/long term degradation products are to be expected.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.

Disposal methods	The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.
Contaminated packaging	Dispose of as unused product.
Waste treatment Method	See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport information

- Not classified as hazardous for transport

UN number	ADR/RID: 2014 IMDG: 2014 IATA: 2014
UN proper shipping name	ADR/RID:HYDROGEN PEROXIDE, AQUEOUS SOLUTION IMDG: HYDROGEN PEROXIDE, AQUEOUS SOLUTION IATA:HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Transport hazard class(es)	ADR/RID: 5.1 (8) IMDG: 5.1 (8) IATA: 5.1 (8)
Packaging group	ADR/RID: II IMDG: II IATA: II
Environmental hazards	ADR/RID: NO IMDG: NO IATA: NO
Further information	No data available

15. Regulatory information

Risk Phrases	Irritating to eyes (R36)
Special Remarks on the Products of Biodegradation:	
Safety Phrases Irritant	
Inventory status	Components are on the following inventories: Polymaleic acid: - US TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, Philippine PICCS and Chinese Xi irritant R 36/38 Irritant to eyes & skin R 41 Risk of serious damage to eyes S24/25 Avoid contact with skin and eyes S26/28 In case of contact eyes & skin, rinse with plenty water and seek medical advice Section 312/313: Not listed. Not listed under California proposition 65.
Safety, health and environmental regulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
Authorisations and/or restrictions on use	Regulation (EU) 2019/1148 on the marketing and use of explosives precursors : Hydrogen Peroxide Regulation (EU) 2019/1148 on the marketing and use of explosives precursors : Ammonium nitrate
National legislation	Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances : ACUTE TOXIC ; ENVIRONMENTAL